ENVIRONMENTAL CHEMISTS

Date of Report: January 22, 1993
Date Received: January 19, 1993
Project: 7238, Filter Room Heavy Metals, PO #M27378

RESULTS FROM THE ANALYSIS OF DUST SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as $\mu g/g$ (ppm)

<u>Sample ID</u>	<u>M27378</u>
Analyte:	
Arsenic	<1.0
Barium	15
Cadmium	
Chromium	1,300
Lead	50
Mercury	<1.0
Selenium	<1.0
Silver	1.5
Copper	14,000
Nickel	2,800
Zinc	180

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Results Reported as $\mu g/g$ (ppm) Quality Assurance

Sample #	<u>Blank</u>	M27378 (<u>Duplicate</u>)
Analyte:		
Arsenic	<1.0	<1.0
Barium	<1.0	17
Cadmium	<1.0	4.0
Chromium	<1.0	1,500
Lead	<1.0	52
Mercury	<1.0	< 1. 0
Selenium	<1.0	<1.0
Silver	<1.0	1.5
Copper	<1.0	15,000
Nickel	<1.0	3,100
Zinc	<1.0	170

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RESULTS FROM THE ANALYSIS OF DUST SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010) Results Reported as % Recovery

Quality Assurance

Sample #	M27378 <u>Matrix Spike</u> % Recovery	M27378 <u>Matrix Spike Duplicate</u> % Recovery	Spike <u>Level</u> (ppm)
Analyte:			
Arsenic	92%	98%	50
Barium	72\$	85%	25
Cadmium	75%	78%	25
Chromium		ai	25
Lead	67%	62%	50
Mercury	92%	83%	50
Selenium	84%	91%	50
Silver	102%	102%	10
Copper	ai		25
Nickel	ai Barana	ai Ai	50
Zinc	ai	ai	25

ai The amount spiked was insufficient to give meaningful recovery data.

ENVIRONMENTAL CHEMISTS

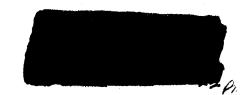
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Results Reported as % Recovery Quality Assurance

<u>Sample #</u>	<u>Spike Blank</u>	Spike <u>Level</u> (ppm)
Analyte:		
Arsenic	107%	50
Barium	116%	25
Cadmium	112%	25
Chromium	117%	25
Lead	114%	50
Mercury	115%	50
Selenium	109%	50
Silver	117%	10
Copper	118%	25
Nickel	119%	50
Zinc	112%	25

FRIEDMAN & BRUYA, INC. 3008-B 16th Avenue West Seattle, WA 98119



SAMPLE CHAIN OF CUSTODY

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Address 628 Hanton	ST WA	9813						
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•					Return Samples Call for Instructions			
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Received by:	1			 			···	

ENVIRONMENTAL CHEMISTS

Andrew John Friedman James E. Bruya, Ph.D. (206) 285-8282

3008-B 16th Avenue West Seattle, WA 98119 FAX: (206) 283-5044

January 22, 1993

Gerry Thompson, Project Leader Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on January 19, 1993 from Project 7238, Filter Room Heavy Metals, PO #M27378.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

Mark Z Perin

Chemist

MZP/dp

Enclosures